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ORIGINAL COMMUNICATIONS.

KIDNEYS, URETERS, BLADDER, AND CALCULI FROM A CASE OF IMPACTED CALCULUS IN A CHILD TWICE SUCCESSFULLY LITHOTOMIZED—DEATH FROM EXHAUSTION.

Read before the Pathological Society of Philadelphia, Thursday Evening, January 22, 1880,

BY JAMES TYSON, M.D.,

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THE specimens were removed from a lad 6 years and 4 months old. On April 21, 1877, when 3 years and 10 months old, he was cut for stone by Professor D. Hayes Agnew, who removed the phosphatic calculus now exhibited to the Society. It was oval, 3.5 cm. long by 2.2 cm. in its longest conjugate diameter, white, smooth on its surface; on section, also white, loose in the texture of its central portion, and without a nucleus. It was of the same composition throughout. The cut made by the operation was very slow in healing, the latter not being completed until October 1. At least two years before the operation—that is, when less than two years old—he began to complain of bladder symptoms; previous to this he had been delicate. He came under my care about May 1, 1878, one year after the operation for stone. He was then suffering with the symptoms of cystitis, such as are present with a calculus in the bladder, but usually subside soon after the removal of the stone. There was frequent micturition, a small amount of pus, and a very small degree of albuminuria, while the urine was either alkaline when passed or became so very soon afterwards. He was subject, however, in addition, to paroxysms of extreme pain, which was confined almost exclusively to the region of the navel. The attacks occurred about once a week, and succeeded upon days on which he felt unusually well, played a good deal, and tired himself thereby; they lasted until paregoric sufficient to relieve them had been given. He was very pale, anæmic, and appeared a very delicate child.

I put him on benzoic acid, which was to be given until the urine was distinctly acid, and at the end of two weeks he was greatly better. The paroxysms were less frequent; there was less pus in the urine. To the benzoic acid treatment was added sandal-wood oil, and the two were continued, more or less constantly, either together or alternately, as the condition of the urine and other symptoms suggested, throughout the entire summer. This was spent at the seaside. Iron and quinine were also given as tonics when required. It was considered that during this time there was a gradual abatement of his severer symptoms.

About September 10 he had a decided return of his symptoms, this time accompanied with great pain over the bladder, and frequent micturition, during which he seized his penis in his hands; he passed water from three to six times in a night. His general health I thought at this time greatly improved. The urine was very pale, almost colorless, acid, specific gravity 1003, and contained a few leucocytes and a small quantity of albumen. By the middle of October he was again relieved of the painful symptoms, the specific gravity of the urine increased to 1007, but the albumen had increased decidedly to half the bulk of urine tested. No tube-casts could be found, nor were any ever found in the entire course of the sickness,—at least, while he was under my observation.

By the middle of January, 1879, the albumen had again become very small in quantity, there was a scanty sediment of leucocytes, and the urine had attained a specific gravity of 1016,—the highest it ever was while he was under my care. The special treatment during this time was sandal-wood oil, directed to the cystitis, and benzoic acid, to influence the reaction of the urine, as required.

On February 3, 1879, he had a hemorrhage from the bladder, accompanied by great pain. It was, however, at a single act of micturition, and what I examined by the microscope, eight hours after this, contained no blood-corpuscles, but one-half its bulk of albumen. The hemorrhage did not recur.

February 12, Professor Agnew sounded for stone successfully. On March 11 he operated, and after some difficulty removed the second stone exhibited. This was much smaller than the first, being also

oval, 2 cm. long by .6 cm. wide. More than half the external surface was white, the remainder brown, and projecting from the former were a number of spicules, by which it was supposed it was imbedded in corresponding depressions in the bladder; whence the difficulty in extracting it. On section, the external concentric laminæ were white, but in the centre was a brown, oval nucleus, 1 cm. long and .5 cm. wide. Portions of this nucleus almost totally disappeared on incineration, but the residue responded to the murexid test. It therefore contained some uric acid.

He was kept in bed six weeks, until April 30, when he was allowed to get up, although the wound was not quite healed. Until April 15 there was a good deal of pus and some blood in the urine, but upon that date we returned to the treatment by sandal-wood oil, after which they rapidly diminished. He had some pain on passing water, which continued until April 15, when this too disappeared. Immediately after getting up, the urine dribbled through the opening in considerable amount, but this gradually diminished until it was scarcely sufficient to soil a napkin during the entire day. On May 10 the urine contained a mere trace of albumen, a small sediment composed of pus and earthy phosphates, was faintly acid when passed, but became alkaline soon thereafter, and presented a specific gravity of 1005. Soon after this he went to the seashore.

On August 14 the little patient's mother called upon me to report his condition. She said that for as much as two weeks at a time there was no dribbling of urine from the wound; then an attack of pain was succeeded by dribbling for a time. He was very well in every other respect, although thin. He ate heartily and played all day long. He continued taking the sandal-wood oil, and for a time the benzoic acid.

Early in September, Willie returned from the seaside. He was very thin, but his wound had entirely healed. His mother reported that soon after his return he took cold two or three times in rapid succession, his stomach became deranged, his appetite disappeared, and he became weak and emaciated. I saw him September 20, the first time since his return, and was much struck by his emaciated and cachectic appearance. The urine presented about the same characters as when last examined. He was immediately put to bed, placed on restorative treatment, and for a time seemed to grow stronger; but, as though in consequence of the absence of treatment especially directed to the urine, the latter contained much more mucus and became alkaline, and these characters continued until the benzoic acid was re-ordered, when they partially disappeared.

The improvement in his general condition was, however, only temporary, and early in November it was evident he was again declining. He emaciated, grew weaker day by day, and died on the afternoon of November 15, 1879, although he was out in his coach two days before. On the day before his death he had to be catheterized, but there was considerable urine in his bladder, and there was no reason to suppose there was suppression of the secretion. He also suffered a great deal of abdominal pain for two or three days before he died. Very interesting in connection with the results of the post-mortem examination is the fact that his father, while feeling his abdomen on the afternoon before he died, discovered a hard, irregular mass in the neighborhood of the umbilicus.

The *post-mortem examination* was made fifty hours after death. The body was extremely emaciated, but all the organs were found normal except the kidneys, ureters, and bladder. Both kidneys were cystic, each being converted into a multilocular cyst, of which the loculi were distended with a mixture of pus and urine, the former apparently predominating, as there was very little urinous odor. The left kidney was the larger, measuring 10.5 cm. by 5.5 cm. Its surface contained numerous white tubercles (see A, A in the figure), ranging in size from that of a pin's head to a pea. The *pelvis* of this *left kidney* was distended with the same fluid which filled the loculi, and the left ureter—dilated throughout its extent—was almost completely occluded by a single calculus of most peculiar shape. It was spirally twisted and somewhat spindle-shaped, much constricted near its middle, and 5.5 cm. long by 1.5 cm. in its thickest part.

The *right kidney* was smaller, measuring 8.5 cm. by 4 cm., but in all other respects similar. The pelvis and ureter were dilated, and the latter packed with three fragments of what was originally a single

stone, constricted at two points, where it had probably been fractured in removal, making three pieces. The original stone was arcuate in shape, 10.5 cm. long and 1 cm. wide at its middle. The same tubercles were scattered throughout the cortex of this kidney.

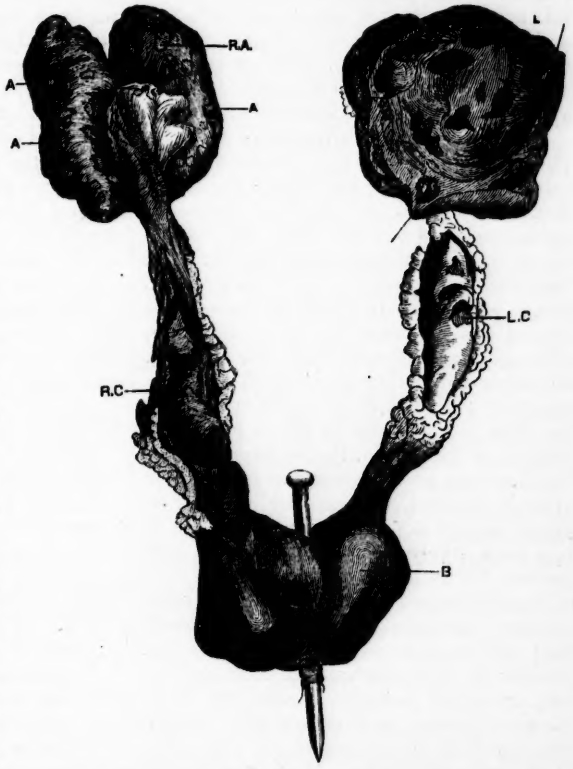
The *bladder* contained a small stone, which had evidently descended since the last operation, and was apparently a fragment of one of the stones remaining in the ureter, the fracture having taken place at a point of constriction. This stone was about 2.5 cm. long, and varied in diameter from .5 to .75 cm. The bladder was thickened, the mucous membrane thickened, and no traces of the cut made at the time of the operation were discoverable.

The pediculation observed on the stone removed at the last operation, which was believed to have occurred during its presence in the bladder, most probably did not occur there, as the stones found in the ureter exhibited the same peculiarities, although these pedicles were probably the means of its attachment to the bladder.

Remarks.—The case is a rarely interesting one, not only in its unique morbid anatomy, and as showing the rapidity and extent of sedimentary processes in the urine, but also in suggesting a possible explanation of certain recurrences of stone in the bladder; while from the therapeutic aspect it is not without its uses.

In the first place, it is evident that the hard mass felt by the father of the child through the abdominal walls just before death was made up by the calculi, which, although contained in separate ureters, united to form a single confused mass in the median line just above the sacrum. How long before death this could have been felt I do not know, for I had not examined the abdomen for some time. There is every reason to believe, however, that it might have been recognized at any time subsequent to the emaciation, which began during his absence from the city, in the summer, and which so impressed me when I first saw him, some time after his return. The practical hint to be deduced from it is that frequent examinations of the abdomen should be made in cases of suspected impacted calculus.

A second interesting question refers to the cause of the peculiar spiral, corkscrew twist in the calculus in the left ureter, and the approximation to this appearance in the constrictions in the stone in the right ureter. At first I was inclined to account for this by some peculiarity in the mode of deposit; but could it not have been the result of the solvent action of the urine as it trickled round the stone in seeking an outlet from the pelves of the kidneys through the ureters, the lumina of which were so tightly filled by the calculi? Support to this possibility is afforded by the fact that the stones are phosphatic, and that the urine was kept acid more or less constantly by the benzoic acid, and by the fact that there were no concretions in the



kidneys themselves and their pelves,—only in the lower halves of the ureters.

A third point of interest bearing upon the termination of the case was the relation of the walls of the left ureter to this spiral channelling of the stone contained in it. They were closely applied to it, as the threads of a female screw are to those of the male screw which passes through it. Hence the impaction was complete, and it was impossible for this calculus to descend farther. The impaction of the stone in the right ureter was almost as complete, and it was impossible to move either until the ureter was slit up, while with great difficulty were the folds reached which applied themselves to the spiral channel.

Fourth, certain recurrences of stone in the bladder receive a lucid explanation by this case. It will be remembered that two stones had been removed at successive operations, and one was found in the bladder at the post-mortem examination. The first removed, judging from its size and shape, was evidently a separate stone; the second small stone removed by operation, although its ends were both rounded off, corresponded in size with one of the fragments of the stone in the right ureter, and the little prominences by which it was imbedded in the walls of the bladder, causing its adherence to the latter and consequent difficult removal, were precisely similar to others on the impacted stones. Hence it was very likely a fragment which had broken off from the parent stone at one of the constricted points, after it had been extruded a certain distance into the bladder; for the stone which was found in the bladder at the post-mortem examination had evidently recently broken off from the parent stone, as it presented a faceted end, which fitted another on the lower end of the impacted stone. And it is not at all impossible that had the child lived another portion could have broken off and been projected into the bladder.

Finally, the therapeutics of the case show indisputably the efficiency, first, of sandal-wood oil in catarrhal states of the bladder, and, second, of benzoic acid in securing an acid reaction in urine which has a tendency to be alkaline. Tannic acid in sufficiently large doses was substituted for the benzoic acid for a time, without the same effect in diminishing the alkalinity of the urine and thereby diminishing the viscidity of the mucus.

With regard to the administration of the benzoic acid, it was given in the shape of compressed pill, which, after a good deal of experience, I am convinced is by far the best mode of administration of this otherwise most unpleasant remedy. The pill thus prepared is tasteless, is swallowed with great facility, does not irritate the stomach, and the remedy is as efficient in this as in any other mode of administration. The dose given was at first half a grain three times a day, which was afterwards increased to five grains, as often, and continued for weeks, only with advantage. It had been discontinued, however, for some weeks previous to the decline of appetite and the gastric derangement, which appeared at two months before he died. During the month before his death it was found necessary to return to it, in consequence of its useful effect upon the urine, which the untiring vigilance of the boy's mother had not failed to recognize.

It is scarcely necessary to say that the sandal-wood oil was found best administered in capsules. In this shape it could never be discovered that it caused any gastric derangement.

SOME NEW OBSERVATIONS UPON THE ANATOMY AND FUNCTIONS OF THE ANKLE AND TIBIO-FIBULAR JOINTS.

Read before the Philadelphia County Medical Society, January 28, 1880,

BY CHAS. B. NANCREDE, M.D.,

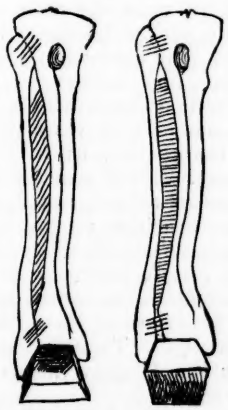
Surgeon to the Episcopal Hospital, Demonstrator of and Lecturer on Osteology and Syndesmology in the University of Pennsylvania.

GENTLEMEN,—The remarks that I propose making this evening are original only in the sense of the arrangement and interpretation given to them. The mere knowledge of the configuration of the bony surfaces, and the course pursued by the ligamentous fibres, have been long known; but the reasons for the peculiar forms of the articular processes, the absolute necessity that the ligamentous bands should pass in a certain direction, and the "*raison d'être*" for two bones in the leg, have, I believe, never been before pointed out.

It will be well first to pass rapidly in review the main peculiarities of the bony surfaces involved, next to examine the ligaments, and finally to deduce from these facts the views that I maintain are correct with regard to the functions of the ankle and tibio-fibular joints.

The articulating portion of the astragalus entering into the construction of the ankle-joint is, in the first place, much wider in front than behind,—*i.e.*, *wedge-shaped, with its base forward.* Again, the lateral articular facets for the malleoli slope from above downward,—*i.e.*, *it is wedge-shaped from above downward, the blunt apex pointing upward.* In accordance with the shape of this bone, so is the socket formed by the two malleoli, it being much wider in front than behind. The bony surfaces composing the inferior tibio-fibular joint consist generally of a small crescent-shaped surface upon either bone, while all the rest of the apposed surfaces are much roughened for the attachment of a felt-like interosseous ligament. The superior tibio-fibular joint consists of a rounded or ovoidal facet, situated upon the fibular head, presenting upward, forward, and outward, which articulates with a similarly-shaped surface upon the back and outer part of the external tuberosity of the tibia.

The ligaments of both tibio-fibular joints need not be described very minutely for our present purpose. Suffice it to say that all the ligamentous fibres pursue an *oblique course from the tibia downward to the fibula*, and that the capsule of the superior tibio-fibular joint is a loose one.



Extended. Flexed.

The diagram will show the course pursued by the fibres better than description. As before said, the apposed rough surfaces of the inferior tibio-fibular joint are connected by a short, felt-like collection of fibrous tissue,—*i.e.*, the inferior interosseous ligament.

Only a few more preliminary remarks will be necessary before proceeding to draw the inferences which I propose deducing from the foregoing facts. The first is that the ligaments *must* be perfectly inextensible and inelastic to perform their functions properly.

A little reflection will demonstrate that, in walking, the moment the foot is placed upon the ground the body still tends to go forward from its own impetus, and there is a marked tendency for the leg bones to slip forward upon the dorsum of the foot. This is not theory, but a demonstrable fact. Some provision against this must be made. If the immunity from displacement had to depend on the posterior ligament of the ankle-joint, it would have to be enormously strong. But let it be never so strong, unless it were *tight* it would not prevent luxation. If, however, it were tense in all positions where this forward displacement was liable to occur, it *would render flexion utterly impossible.* What, then, *is* the arrangement found? Simply that the astragalus is wedge-shaped, with its base in front, so that the more the leg bones tend to slip forward the tighter the articular surfaces are pressed together. This also is not theory, but a simple mechanical fact. The shape of the bony surfaces—excluding the muscles, which, as is too commonly overlooked, are often the most important ligaments of a joint—is absolutely the only obstacle worth mentioning to forward displacement of the leg bones. Some anatomists go so far as to deny that there is *any* posterior ligament to the ankle-joint. Although I do not endorse this statement, it is manifest that to allow free flexion and extension movements to take place, both the anterior and posterior ligaments of the ankle must be loose; and if loose, not well marked, since they do not check movement, and great strength would be useless.

This shape, however, of the astragalus and its socket, if the latter were rigid, would completely arrest flexion, as the broad anterior end, already firmly embraced by the malleolar arch, could not be made to pass backward into the still narrower portion of the socket, as is actually the case in flexion.

The necessity for free and marked flexion in walking, etc., is well seen when the ankle-joint is anchylosed or stiffened, producing an exceedingly awkward and slow gait.

How, then, is an *adaptable* socket provided? Simply by having *two* bones in

the leg, *one of which is movable*, the other fixed. By examining the diagrams it will be seen that the tibia and fibula can be compared to the two halves of a parallel ruler, and the ligamentous fibres to the two brass arms of the same instrument. Both the ligament and the brass arms are inextensible, but any wedge-like object insinuated between the two halves will push up the movable half and widen the space between them.

Just so in the ankle-joint. In extreme extension the narrow part of the astragalus is carried forward to that part of the socket which before accommodated the wide portion of that bone; and yet there is complete apposition of the bony surfaces, because the movable bone—*i.e.*, the fibula—glides down. Again, in flexion the wide anterior portion of the astragalus is pressed between the narrower portion of the socket, which is widened by the fibula gliding *upward*. This upward gliding approximates the attachment and origin of the ligamentous fibres just enough to permit the two malleoli to be sprung apart sufficiently to admit the base of the astragaloid wedge. From the mode of attachment of the middle band of the external lateral ankle ligament,—viz., in front and above the apex of the internal malleolus,—this structure is tense in every position of the joint, and especially in extension winds around the malleolus, thus pulling it down and narrowing the socket in the extended position when such a condition of the malleolar arch is demanded. Any one who will examine either his own leg or that of a cadaver will see that these facts are capable of easy demonstration.

In claiming originality for my views, I wish merely to say that I am personally unaware of similar explanations of the functions of these joints, and have been informed by two of the highest authorities on anatomy in this country that they are new to them. I have been unable to find anything in the remotest degree resembling them in my reading, but shall be happy to acknowledge the priority of any other observer's claims if proved to me. The importance of these facts will be patent to any surgeon as explaining some of the troubles referable to the ankle-joint when the foot has been kept too much extended after fractures, sprains, etc., especially when complicated with injury to the inferior tibio-fibular joint, as is so common, it in reality being part of the ankle-joint.

REMARKS ON LIPÆMIA RETINALIS OCCURRING IN A CASE OF DIABETES MELLITUS.

Read before the Philadelphia County Medical Society, January 28, 1880,

BY ALBERT G. HEYL, M.D.,

Ophthalmic Surgeon to the Episcopal Hospital.

I WISH to present to the notice of the Society a copy of the fundus oculi of a case of diabetes mellitus. It is well known that diabetes mellitus is frequently accompanied by abnormal conditions of the eye: this fact was noticed far back in pre-ophthalmoscopic times. Rollo, in his monograph on Diabetes, London, 1798, refers to two cases of the kind, probably the first mentioned in literature in which there is reason to infer that the diabetes was the cause of the eye affection. It is true that Blankaart, of Amsterdam, in 1688, mentions the occurrence of blindness in a case of diabetes; whether the case were one of diabetes mellitus or insipidus does not appear. Possibly Blankaart was unaware of the distinction, as it was only fourteen years previously that Thomas Willis called attention to the sweet taste of the urine of certain cases of diabetes. However, as Blankaart ascribes the blindness of his case to a tumor found after death pressing upon the optic nerves, we must look upon the blindness rather as a coincidence than a sequel of the diabetes. Since Rollo's time numerous instances of eye affection in diabetes mellitus have been observed, and in later years the ophthalmoscope has enabled us to study them more closely. These eye affections are disturbances of refraction and accommodation, lens opacities, vitreous clouds and hemorrhages, certain affections of the optic nerve, and certain affections of sight apparently depending on central lesions. It is, however, to none of these that I invite attention to-night. The appearance I bring before you has, I believe, never been described or copied.

The patient from whom this picture was copied was an inmate of the male medical ward of the Episcopal Hospital, under the care of Dr. Louis Starr. Owing to his complaining of defective vision, I was asked to examine his eyes. I saw him for the first time November 11, 1879. Examination, under atropia, revealed a nuclear cataract, with partial involvement of the cortical, on each side. The appearance of

the fundus of each eye was quite peculiar; that of the left was more visible than that of the right, owing to the left lens being less involved than the right; still the right fundus was clearly enough visible. The peculiar appearance which attracted my attention was the color of the blood-vessels. Those of you who are familiar with the normal fundus know that one of the most striking objects seen in ophthalmoscopic examination is the retinal vessels,—that the retinal veins are characterized by their larger size and the dark color of their blood, the arteries being smaller and lighter in color. In the picture of the fundus which I present to you you will notice at once a great difference from the normal appearance. The vessels are very light in color, both veins and arteries, and the color very closely approximates that of the fundus; the veins are very large in size, and at the same time not tortuous; the artery is seen branching off from the trunk and running downward and inward for a short distance, and is then lost, by reason partly of similarity of color, in the fundus. Whether a branch also ran upward could not be told. A vessel in the upper half of the fundus is seen stopping, apparently, at the edge of the excavation; it could not be traced farther: very possibly it was a branch of the artery.

The color of the vessels is represented as they appeared when the light was thrown on them directly; when the mirror was shifted by a slight rotary motion the veins could be distinguished by their slightly darker color. There was no retinitis in either eye, nor were any hemorrhages seen.

I will now pass around this accurate painting of the fundus of the right eye; it was very skilfully copied for me by my friend Dr. Nancrede, and recalls the case very vividly to my mind. While the picture is being examined we may briefly discuss its nature.

1. Was it due to any structural change in the vessel-coats, by reason of which the contained blood was partially obscured from sight? There are morbid processes which attack the tunica adventitia of the vessels, which may almost render the blood invisible to the eye. The appearance of this condition is totally different from that under consideration. Those acquainted with the two could not mistake the one for the other.

2. We may, then, turn to the character of the blood itself. To be as brief as possible,—for I am only presenting this picture, not attempting to do more,—the blood was examined: the finger was pricked, and a small quantity of blood obtained. The character of the blood was very peculiar: it had a milky-red hue, approximating that of a piece of pink coral. Examination with the microscope revealed the presence of fat globules. The number of red globules was carefully counted by Dr. F. P. Henry, and it was found that the blood was not leucocythæmic. This was, therefore, one of those cases of diabetes mellitus accompanied by lipæmia, or a condition of blood characterized by a milky hue, arising from the presence of an abnormal quantity of fat. Cases of the kind have been described by Virchow, Griesinger, Kussmaul, Sanders, and others.

This peculiar appearance of the retinal vessels was then, doubtless, due to abnormal presence of fat in the blood, and I may properly apply to it the name of retinal lipæmia.

I have thus presented to your notice this picture of the fundus oculi of this case, without going into the details. The case will be reported in full in one of the journals, so that opportunity will then be given to learn them. The condition is interesting from its novelty, but it may also have some practical bearings. Without, however, alluding, at this time, to points which might be of interest to the specialist, I have presented this picture as showing one feature of an obscure complication of an obscure disease. I thought also it would be of some interest to the Society, as the attention of the profession has recently been called to this condition of lipæmia in diabetes mellitus: I refer to the able and interesting paper on Lipæmia in Diabetes Mellitus and Fat Embolism, written by Professor Sanders and Mr. Hamilton, published in the *Edinburgh Medical Journal* for last July.

Of the one hundred and thirty-three candidates examined at the Royal College of Surgeons of England this winter, seventy-seven passed to the satisfaction of the Court and obtained their diplomas; seven passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining forty-nine failed to reach the required standard, and were referred for six months' further professional study.

TOOTH-CARIES OF PREGNANCY—ITS CAUSE AND TREATMENT.

BY EDWARD C. KIRK, D.D.S.,

Philadelphia.

IT is a well-known fact that during pregnancy women are often subject to more or less annoyance and discomfort from their teeth. This disturbance may vary in degree, from a slight uneasiness—a mere consciousness on the part of the individual of the presence of teeth in her mouth—to the severest form of odontalgia, involving several teeth. The frequent occurrence of rapid and extensive destruction of tooth-structure during pregnancy is so well recognized that it would be useless to multiply examples: one case will serve to illustrate. Mrs. J. presented herself for examination of her teeth. She gave the following history. Up to the time of her marriage the teeth had been of good quality, rarely requiring the services of a dentist. During the three years following marriage she gave birth to two children; she also suffered much from toothache, and had two of her teeth extracted. After the birth of her second child she placed herself under the care of a dentist in a neighboring city, who put her mouth in order; he being a thorough and conscientious operator, the work was well done.

Again she became pregnant, suffering as before with her teeth; some of the fillings dropped out, and a number of new cavities appeared. It was after the birth of this her third child that she came under my charge. On examination, I found the teeth very sensitive, and so soft that they could be cut away almost like chalk. The decayed portions were of that peculiar cartilaginous character which indicates a loss of the mineral portions of the tooth. I filled, in all, seventeen cavities, some large, others small, and extracted the root of one tooth too far gone to be of service in sustaining an artificial crown.

This case is a typical one, and illustrates well a class of cases that call for a large share of the dentist's attention. In those cases where women have borne children rapidly, it is the common story that up to the time of marriage the teeth were of good quality and gave but little trouble, but since have rapidly failed.

As to the cause of this degeneration of tooth-structure during pregnancy, there is little reason to doubt the accepted explanation that an excessive demand is made upon the system of the mother for the lime-salts necessary to the formation of the osseous structures of the fœtus, and the teeth of the mother suffer, along with her osseous system, in meeting this demand when the supply of lime-salts is not sufficiently kept up in the mother's food.

We believe that much can be done to avert this wholesale destruction of the teeth, the loss of which entails so much disfigurement and physical suffering. If the cause be as stated, then to supply food rich in lime combinations is the rational indication. But most of the food brought to our tables is not rich in bone-forming material, and it may be that even a liberal supply of lime-containing food would not meet the urgent demands made during pregnancy upon a system already poor in lime-salts: certainly the judicious use of some of the soluble preparations of lime, such as the lactophosphate or hypophosphite, would be of benefit in such a case, not only in maintaining the lime standard of the mother, but also in insuring to the fœtus a well-developed osseous and dental organization. We have every reason to believe that rickets is due to lime-starvation on the part of the mother and child; and evidence is not wanting to show that certain malformations of the jaws, and consequent irregularities of the teeth, are in a measure due to the lack of sufficient bone-forming material during fœtal development.

A fact in this connection which I have had occasion to observe more than once is that in a large number of pregnant women the morbid craving, so called, for unusual articles of food—which is so often present and may occasion great annoyance to both patient and physician—is for articles of a mineral character, as chalk, slate-pencils, lime, plaster, whiting, etc.

Two cases in particular have come under my notice. In the first case the woman would mix a saucerful of whiting and water, which she kept near her during the day, and would eat large quantities of it with evident relish.

In the other case the lady stated that during her pregnancies her desire for lime was so great that she would almost have to run past a mortar-bed in the street lest the desire to stop and eat portions of it should overcome her. When at home, she would pick particles of plaster and whitewash from the wall and eat them greedily.

It seems reasonable to believe that this craving is nothing more than nature's method of expressing the need for lime-salts when, from pregnancy or other causes, the supply is not equal to the demand and the system is poor in lime as a consequence. I say from other causes; for what else is it that will make a rapidly-growing, overworked school-girl chew her slate-pencils and lead-pencils with such apparent relish?

If all this be true, then the treatment before indicated of supplying to the system all the lime it needs, either by properly selected food, or, if occasion demands it, by the administration of a sufficient quantity of some soluble preparation of lime, ought to do much towards averting the destruction of the teeth by caries during pregnancy, and relieve the distressing cravings for unusual kinds of food incident to that period. As having bearing upon the subject and showing that an increased amount of lime is demanded by the system during pregnancy, I may cite the fondness which birds and fowls generally have for lime, oyster-shells, plaster, etc., during the egg-laying period. Another point which I have noted is that this fondness for lime is displayed on the part of the female more than on that of the male: hens will quarrel for the possession of an empty egg-shell, and the cock will look on without interest while they devour it greedily.

The effect of an insufficient supply of lime is seen sometimes in the case of caged birds, as canaries. If they are not supplied with cuttle-fish bone during the breeding-season, the eggs will be laid without shells, or with shells so thin that they will not withstand the slightest touch. This same result takes place with hens that are cooped for a length of time and are not supplied with a proper quantity of lime-containing food. Is not the desire for lime shown by these animals analogous to the craving so often exhibited by pregnant women for like substances? It is true the craving does not in every instance take the form of a desire for lime; but nevertheless it is probably only an expression of the same need lacking proper direction.

The system makes demands for what it needs in a way there is no mistaking. At times we crave acids, and we indulge freely in pickles, acid fruits, etc. At other times sugar or salt is needed, and we eat accordingly.

This is further illustrated by the long pilgrimages made by the buffaloes and antelopes of our Western territory to the salt-licks, in order to satisfy their instinctive demands for salt.

The rapid destruction of teeth during pregnancy, and the therapeutic measures suggested by the so-called morbid cravings, are of equal importance to physician and dentist.

To secure for the overtaxed child-bearing woman immunity from much pain, nervous distress, imperfect mastication, and impaired digestion, by the preservation of her teeth, cannot be considered as a trivial matter.

As the sphere of the dentist to-day is limited in a great measure to the repair of injuries already sustained by the teeth, we must look to the members of the medical profession to aid us in answering the question, How much in the way of preventing the decay and loss of the teeth from pregnancy can be accomplished by supplying to the system all the lime it needs during the gestative period?

1807 CHESTNUT STREET.

DUBOISIA—ITS PECULIAR AND GENERAL EFFECT COMPARED WITH ATROPIA.

BY WILLIAM S. LITTLE, A.M., M.D.,
Chief of the Eye Clinic, Jefferson Medical College Hospital.

DUBOISINE has already been in use a length of time sufficient for its value as a mydriatic to be judged, both in its therapeutic influence on the eye and in its mechanical action on the ciliary muscle for correcting ametropia.

Having used it almost continuously at the eye department of the Jefferson Medical College Hospital, and in my private practice, since July, 1879, a record of some of its peculiarities and general effects may be interesting to consider.

Professor William F. Norris, M.D., in an article on duboisia as a mydriatic, with remarks on its physiological and toxic effects, published in *The American Journal of the Medical Sciences*, No. 154, April, 1879, has given an ample description of the drug and its effects on animals and man.

In reference to animals he says, "It produces intoxication, delirium, dilatation of the pupils, loss of co-ordinating power over the limbs, and relaxation of the sphincter (urination and defecation), with

a marked rise of temperature, followed by a decided fall of it below the normal standard."

In two cases observed by me I have found nearly all those symptoms occurring in man which Professor Norris has stated as seen to occur in animals.

The symptom I desire to notice chiefly in this paper is that of relaxation of the sphincter of the bladder, allowing an involuntary act of urination, in addition to the other already observed influences of the drug on man.

During December, 1879, Dr. ——, æt. 36, requested me to correct his optical defect. A four-grain solution of sulphate of duboisia was used, three drops of it in each eye once, an interval of five days elapsing between the examination of each eye.

Normal mydriasis occurred. After each instillation dizziness took place, drowsiness and slight want of co-ordination of the muscular system followed, and, in addition, there was observed a peculiar influence on the bladder, taking place in the same way after the use of the drug in each eye at separate times. The patient stated that the first attempt at urination, a few hours after the use of the drug, was normal and entirely voluntary, and he supposed the act accomplished, when, in a few moments, a second and then a third involuntary act took place, he not being prepared for it the first time, but thereafter was more cautious. This action lasted three days after the use of the drug in each eye, and was thus observed twice in its influence on the bladder in this patient.

In another case, observed in March, 1880,—Dr. ——, aged 25 years,—the same strength solution was used for refractive purposes in the right eye. The instillation was made at 2 P.M. Dizziness was felt at the end of fifteen minutes, and continued for fifteen minutes longer while sitting still; on walking, want of full power of co-ordination was experienced, and the patient said he felt as if intoxicated. The necessary examination was then made, and at the end of an hour from its use the doctor went home, which was near at hand. He said he suffered while going in the same manner, and then on his arrival lay down and went to sleep. At 7 P.M. he was aroused, after some effort by his friends, to partake of supper, and thereafter suffered no inconvenience in the same way. Later in the evening he urinated normally, and considered the act finished, when, in a few moments, a second and involuntary act took place, much to his disgust and surprise. This occurred for three days, he being prepared for it thereafter.

There was no pain, irritability, or increase in the amount of urine voided or in the force of the expulsion, in either of these cases, nor was there any greater frequency in the voluntary act.

Three weeks later I used two drops of a four-grain solution of sulphate of atropia in the left eye of the last case mentioned, for refractive purposes and to compare the action of duboisia and atropia in the same patient. Only normal mydriasis occurred, and no other constitutional manifestation, not even dryness of the throat. Atropia was evidently to be preferred by him. These medical gentlemen compared notes, and informed me of their unpleasant experience, which I consider worthy of narration, showing how men and animals can be similarly affected by the same drug.

Since my experience with these gentlemen I have sought for the same manifestation in all of my male patients under its influence, but have found no other as yet; nor do I know of any such action on the opposite sex. Men I have found to be most susceptible to the drug, children slightly so: more cases must be observed on this point. In a more general way, I have found cases of interest exhibiting the effect of the drug. To dilate the pupil in a lady sixty-nine years old to investigate a senile cataract, I used one drop of a two-grain solution of sulphate of duboisia; two hours later, while returning home, she had sudden loss of control of her limbs, and had to be carried home, her friends thinking she was paralyzed. She slept very profoundly; had slight delirium; the next day was well again; later the cataract was removed, no duboisia being used, on account of her susceptibility, but she bore the solution of atropia, two grains to the ounce, very well.

I used a four-grain solution of duboisia in a case of irido-choroiditis with vitreous opacities, specific, only once, to dilate the adherent pupil, intending to continue its use for therapeutic purposes. The woman was twenty-eight years old, and, I have since learned, three months advanced in pregnancy; but on her way home she was

compelled to be taken into a house and to lie down, as she was unable to walk. The effect soon passed off. A four-grain solution of atropia she has endured with only slight dryness of the throat, and a good result has ensued.

The condition of the atmosphere and temperature of the weather have an influence on its use. The unpleasant effects of the drug have been more prominent during the mild, disagreeable, damp weather of the past winter; on cold, clear days it is better accepted.

I have resorted to atropia latterly on warm, disagreeable days, with no bad effects.

There exists also a certain variableness in the drug, one solution acting more unpleasantly than others, and all made from the same bulk; and yet I have had solutions from various sources also.

The cases narrated exhibit the peculiar and general effects of duboisine as I have observed them during my use of it, and which I desire to add to those already made known by other observers.

The only value to be derived from its use is in gaining time in the study of refraction, and that is a decided one where time is a factor. Therapeutically, atropia is to be preferred; and where time is no essential consideration, in the correction of ametropia I would still use atropia. No permanent ills have followed the use of duboisine thus far, and its efficiency is not to be denied.

The action of the drug on the bladder in the cases quoted was no doubt due to partial paralysis of the constrictor urinæ; and if the action of the drug could be gauged for the genito-urinary system, it might be of use, in some cases affecting that portion of the body.

STRYCHNIA SULPH. ANTIDOTED BY ATROPIA SULPH.

BY GEORGE ROBERTS, M.D.,

Bazile Mills, Knox County, Neb.

No. I.—May 23, 1879. Mrs. S., past 70 years of age, poisoned by eating cocoanut candy in which strychnia sulph. had been given with criminal intent. On my arrival, I found the patient under the full influence of the poison; the slightest noise or jar produced violent jerking of the muscles, accompanied by starts. I determined to try, first, atropia sulph. I dissolved a quantity—probably two or three grains—in half a tumbler of water, giving f℥ij every fifteen minutes, promptly relieving the symptoms. There continued, however, twitchings of the bowels and strangury for several weeks, for which many remedies were tried. Veratrum viride gave the best results for the urinary trouble, but the disturbance to the alimentary apparatus yielded only to Horsford's acid phosphate, one bottle, f℥viij.

No. II.—May 26. The son of Mrs. S., aged 40, became suddenly ill from drinking half a tumbler of whisky. As soon as the symptoms were discovered, the medicine in possession of No. I. was given (atropia sulph.), and the patient recovered promptly, as did No. I., before I arrived, a distance of sixteen miles. This latter patient must have died had not the atropia been on hand. The whisky was a saturated solution, as I discovered several large crystals of strychnia sulph. in the one-quart bottle of whisky. I gave ten drops of the whisky to my cat, developing the shocks in just five minutes, and but for the pleadings of my daughter would have continued the experiment, but promptly relieved the symptoms by giving atropia in powder by the mouth, inducing sleep. No other treatment was used in the above cases.

TRANSLATIONS.

QUEBRACHO IN DYSPNŒA AND DIARRHŒA.—The accounts which we get from foreign observers as to the action of quebracho continue to show that this drug is a valuable addition to the *armamentarium therapeuticum*. Berthold has published in the *Berliner Klinische Wochenschrift*, No. 52, 1879, an account of several cases of severe convulsive asthma where this remedy seemed to produce a very happy effect. In one, a gentleman of sixty-five was found in a violent attack, pulse 108, respiration 64. A teaspoonful of the tincture was given every hour, and at the end of three hours the respiration was reduced to 30, and the patient rapidly recovered without other medicine. In some fourteen other cases a similar happy result was attained, though not always with the same promptitude. In the case of a lady of sixty, suffering from mitral insufficiency, with stenosis and frequent attacks of frightful dyspnœa, where digitalis had failed, quebracho gave relief. Berthold also recommends the alcoholic extract of quebracho as an excellent remedy in diarrhœa. In the case of children, he gives the extract in the dose of 1½ grains in pill form to the number of ten a day. No ill effects have been ob-

served. In the same number of the *Wochenschrift* Dr. Picot relates some experiments made upon himself to ascertain if quebracho would prevent dyspnœa from the exertion of climbing, and found that by taking a previous dose of about a tablespoonful of Penzoll's tincture he could climb a considerable acclivity without losing his breath. He has also administered the tincture to two obese and short-winded individuals, with the result of markedly diminishing the dyspnœa felt on extra exertion.

HYDATID CYST OF THE BICEPS.—Dr. Bouillet (*La France Méd.*, January 24, 1880) reports the case of a woman who presented herself with a tumor of the right arm of some years' duration, following, she thought, a blow upon the arm. Examination showed an indolent swelling the size of a hen's egg situated on the internal aspect of the arm at the border of the biceps, just above the epitrochlea. It was strongly adherent to the intermuscular septum, and even seemed to have some attachment to the periosteum. It was soft and semi-fluctuant, and gave the impression under the fingers of including a number of lobes separated from one another and partly movable. It was impossible to make an exact diagnosis, although Prof. Richet, who saw the case, inclined to the belief that it was a multilocular cyst. An exploration with a trocar did not give exit to any fluid, but incision showed purulent and gelatiniform contents. No hooklets of the echinococcus could be found under the microscope, but the appearance of the small vesicles showed the tumor to be of a hydatid character. Injections of alcohol and subsequent cauterization of the interior of the cyst with nitrate of silver cured the patient entirely. Dr. Bouillet calls attention to the rarity of such cysts, and adds remarks on diagnosis.

FRACTURE OF THE CLAVICLE, LESIONS OF THE BRACHIAL PLEXUS, VARIOUS TROPHIC DISTURBANCES.—Chalot reports the following case (*Bull. de la Soc. de Chir.*; from *Cbl. f. Chir.*, 1880, p. 112). In the case of a man of 35, disturbances of innervation showed themselves in the right arm, as a result of fracture of the clavicle. Beginning with a sensation of deadness, formication, and pricking, particularly in the palm of the hand, the affection went on to extreme anæsthesia. Very slight irritation of the finger-tips or the hollow of the hand, or somewhat greater movements of the flexor surface of the forearm, brought on nausea, gagging, and vomiting, with occasional severe diaphragmatic cramp and thoracic oppression ("beklemmung"). The patient became first pale, then red; a cold sweat covered the forehead on the affected side. Irritation with cold water caused the symptoms to appear to a more marked degree, while warm water made them milder. The extremity became smaller, colder than the healthy side, the skin everywhere dry except in the hollow of the hand, there wet with perspiration. The muscles reacted weakly. Pressure upon the branches of the nerves brought on swimming in the head and faintness. Pressure upon the callus at the point of fracture of the clavicle, which had united with considerable deformity, was quite painful and gave rise to diaphragmatic cramp. Pressure upon the nerves of the face, throat, and nape of the neck on the affected side caused similar symptoms.

BENZOATE OF SODIUM USELESS IN DIPHTHERIA.—Gnändinger (*Cbl. f. Chir.*, 1879, No. 49; from *Wiener Med. Blätter*) says that of seventeen cases of diphtheria in children treated by the benzoate of sodium, so warmly extolled by Letzerich, eight died. Of seventy-six others treated in the same hospital with ice, chlorate of potassium, and stimulants, twenty-five died, while two were under treatment at the time of the report. Gnändinger propounds the four following questions: 1. Has benzoate of sodium any perceptible influence upon the rapidity with which the existent false membrane is thrown off? 2. Has it any influence in preventing the formation of this false membrane? 3. Are disturbances of the general system relieved or prevented? 4. Does this medicine itself influence the condition unfavorably? All four of these questions are answered negatively by Gnändinger. He says, "The benzoate of sodium has not sustained the character claimed for it by Letzerich, of 'certainty and rapidity,' either with regard to its influence in curing the disease, or even of relieving the more important symptoms."

ATROPIA IN SPERMATORRHŒA.—Dr. Stephanides had under his care a case of progressive muscular atrophy with beginning bulbar paralysis, complicated by pro-

fuse and rebellious spermatorrhœa. As the latter symptom could not be attributed to a condition of irritation in the genito-urinary passages, it seemed likely that relaxation and dilatation of the ejaculatory ducts had occurred as a result of irritation of that portion of the spinal cord which presides over the formation and evacuation of sperm. Regarding the condition of affairs as comparable to that found in salivary hypersecretion resulting from bulbar paralysis, it seemed likely that atropia, which proves useful in this disorder, should also be beneficial in spermatorrhœa from the same cause. Atropia was, therefore, administered in solution in the dose of $\frac{1}{100}$ grain every evening. In three days the spermatorrhœa was arrested, and in a very short time entirely cured.—*Jour. des Sci. Méd.*, 1880, p. 36; from *Wiener Med. Presse.*

Proportion of Carbonic Acid in the Air (*Cbl. f. Med.*, 1880, p. 14; from *Comptes-Rendus*).—According to former researches, it appeared that under different circumstances the proportion of carbonic acid in the air varies from 0.4 to 0.6 per mille. Reiset, however, has recently ascertained that this proportion is much smaller and the variation minimal. As a result of eighty experiments, all upon an air from the open country, Reiset finds an average of carbonic acid in the air of 0.2942 per mille. Vegetation is almost without influence upon this proportion. The greatest variation observed was 0.03 per mille. The exactness of the method—the volumetric baryta method of Pettenkofer, using two aspirators of 600 litres contents—is shown by the fact that the presence of a herd of cattle in the field one day made the proportion of carbonic acid rise to 0.3178 per mille. The air of Paris showed an average of 0.3027 per mille.

Important Cardiac Anomaly.—Pistoni (*Lo Spallanzani*), at a post-mortem section, found a tumor as large as an apple situated upon the anterior surface of the heart at a point corresponding to its base. This tumor was hollow, with membranous walls, and must have contained blood, since it communicated with the aorta by means of the orifice of the right coronary artery, and with the right ventricle by an opening of six millimetres at its widest point, situated towards the external part of the arterial cone. At this point the latter had lost its muscular character, and appeared like a large fibrous sac containing the tumor. The tumor was supposed to be an aneurism of the coronary artery, of which only five cases are on record. The patient was a woman of 45 to 50 years, who had suffered with œdema of some of the viscera. No other clinical facts are given.

Poisoning by External Influence of Carbolic Acid.—Zillner (*Cbl. f. Chir.*, No. 7, 1880; from *Wien. Med. Wochens.*) gives three cases, of which the first is interesting because the carbolic acid ate into the skin, which was previously intact, and produced fatally poisonous symptoms by absorption. An infant of fourteen months overturned upon itself a can of carbolic acid used for disinfecting purposes. Loss of consciousness soon ensued, followed by death. Autopsy showed the skin reddened and corroded, the hair follicles and glands appearing as white points. Phenol was found in the urine. The mucous membranes showed no signs of the influence of carbolic acid, proving that the poison had not been swallowed.

Case of Tuberculous Fibro-Sarcoma of the Inguinal Cutaneous Tissue.—F. Neelsen saw in a woman of 44 a diffuse, roundish tumor of the hypogastric and iliac regions, with irregular, nodulated surface, which developed gradually in the course of seven years from two small tubercles. The extirpated tumor proved to be a fibro-sarcoma, and included only the lowest layers of the corium, the neighborhood of the sweat-glands and fat lobules. Two similar cases, occurring in women of 57 and 60 years, are recorded by Liron as "*chéloide inguinale spontanée.*" They relapsed repeatedly.—*Cbl. f. Chir.*, No. 7, 1880; from *Arch. f. Klin. Chir.*

Puerperal Hypertrophy of the Heart.—Cohnstein (*Cbl. f. Med.*, 1879, p. 861; from *Virchow's Archiv*) concludes, as a result of a number of observations, personal and other, that in not a few pregnant women who are regarded as comparatively healthy, if a hydræmic condition of the blood be regarded as a normal accompaniment of this condition, certain changes occur in the heart. These are dilatation or hypertrophy, which appears in the second half of the pregnancy.

Dr. F. Hänisch relates (*Arch. Klin. Med.*, xxiii.) a case of wounding of the gastric mucous membrane by the stomach-pump without bad after-results.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MARCH 27, 1880.

EDITORIAL.

THE PHILADELPHIA HOSPITAL.

FOREMOST in this city in point of size and in the richness of its clinical material is undoubtedly the Philadelphia Hospital. Any interference with its usefulness as a centre of medical teaching is, therefore, a matter which concerns the profession not only of this city, but also of the far wider area from which our medical classes are drawn: so that no apology is necessary for our calling attention to a recent action of the President of the Board of Guardians, although a personal element may seem to enter largely into the matter. Indeed, to our thinking, the general interest in the subject is increased rather than minified by the personal element. If the members of the medical staff are to be subject to gross insult in the performance of their duty, the sooner all respectable physicians sever their connection with the institution the better.

The circumstances of the case are briefly these. Some years since, a paper was circulated among the medical staff of the hospital asking their opinions or desires concerning the admission of female students to the public clinics. Acquiescence in such admission was general, but Dr. J. William White objected, because his clinics were chiefly upon venereal diseases. Since then the students of the highly reputable Woman's Medical College of this city have very properly acquiesced in this objection to the extent of either remaining away from Dr. White's clinics or of leaving when certain cases were brought before the class; and Dr. White has in his possession a letter from Miss Bodley, dean of the faculty, and endorsed by a vote of the faculty at a special meeting, exonerating him in the matter concerned.

There are, however, other females attending the Philadelphia Hospital clinics besides the uniformly well-behaved students of the Woman's Medical College. Some of these persons have, in times past, acted in such a way that we would respectfully suggest the passage of a rule by the Hospital Committee requiring matriculation tickets to be shown, so as to make it impossible for loose women to attend clinics in the disguise of medical students, or at least to enable the authorities to track all individuals who behave improperly. This *en passant.*

Last Wednesday week Dr. White unexpectedly found half a dozen women upon the benches when he commenced his lecture, but very properly proceeded as though he were lecturing to males alone. It should be remembered that Dr. White and his particular medical *penchant* are well known: so that the students spoken of might have withdrawn, if they had so wished. They preferred, however, to sit through the lecture; and the next morning Dr. White received from Mr. Chambers one of the most insulting and arrogant notes we have ever read:—insulting, because, without inquiry, and upon anonymous, one-sided evidence, it, in vulgar language, accused Dr. White of "brutal and ungentlemanly conduct while lecturing;" arrogant, because it assumed the rights and authority of the Hospital Committee of the Board of Guardians.

We are glad to learn that the medical staff of the hospital have met and passed resolutions expressive of strong disapprobation of the action of the President of the Board of Guardians, and also of confidence in Dr. White, and demanding an investigation.

The matter is made worse by a scurrilous attack upon Dr. White, accompanied with multitudinous misstatements as to the facts, in one of the Sunday papers. We suppose it would be difficult

to prove that this was not inspired by the President of the Board. In it we find another reason for settling, once for all, the whole question involved; and we trust that the Board of Guardians, whilst investigating this individual case, will adopt some general rules which shall govern the public clinics neither for the good of a handful of women nor for the good of a multitude of men, but of such character that medical students shall be, as it were, sexless, and shall have opportunity to see, in full illustration, all diseases to which flesh is heir, all students being allowed the important privilege of staying away from what they do not like.

Just as we are going to press, we learn that the Board of Guardians have, after investigation, passed unanimously a resolution expressing entire satisfaction with the conduct of Dr. White, both in the wards and in the clinic-room of the hospital. There can be no doubt that this is as it should be. In conclusion, we cannot refrain from expressing the hope that the President of the Board has been sufficiently humiliated to render him, in his dealings with the medical staff in the future, more gentlemanly than in the past. This is by no means the first time that he has attempted to bully members of the medical staff, and he may rely on it that any further improper interference on his part will seriously imperil his position upon the Board of Guardians.

THE Committee of the National Academy of Science recommends that at present no change be made in the existing National Board of Health, except in increasing the powers of the Executive Committee. It further urges continuance of the various researches already set on foot by the National Board of Health, and also the inauguration of investigations upon cholera, malaria, typhoid fever, diphtheria, and cerebro-spinal meningitis. The following recommendations in regard to quarantine questions seem worthy of detailed mention:

"5. That the Act to prevent the introduction of contagious and infectious diseases into the United States should be amended; and in order to enforce the penalties provided for vessels which shall enter ports of the United States in violation thereof, it shall not be necessary to show that the port of departure was, at the precise time of departure of such vessel, actually infected with contagious or infectious disease, nor that ten days' official promulgation in the port from which said vessel sailed should have been effected.

"6. That the National Board or its Executive Committee shall report to the President when any given city or locality is considered to be dangerously infected; and that upon the official publication by the President of such report the transportation of goods or persons from the place thus proclaimed as dangerously infected into other States shall be forbidden, under penalties to be imposed under the jurisdiction of United States courts, unless such transportation is carried on in accordance with the rules and regulations approved by the National Board of Health.

"7. That the President be authorized to call an international sanitary council, to meet at Washington, D.C., to which the several powers that have jurisdiction of ports likely to be infected with yellow fever shall be invited to send delegates, for the purpose of securing an international system of notification as to the actual sanitary condition of the ports and places under the jurisdiction of such powers, and of all vessels sailing therefrom.

"8. That the National Board of Health at once establish quarantine stations near the mouth of Chesapeake Bay and in the vicinity of Ship Island in the Gulf of Mexico; that these stations be provided with all the buildings, wharves, boats, and apparatus for properly treating an infected ship, including passengers, crew, and freight; and that they be kept up and managed by the National Board of Health."

CORRESPONDENCE.

LONDON LETTER.

IT is a day dark from heavy rain-clouds; there is a gale blowing, and the rain is driven audibly against the windows; yet the storm is welcome. We have had a long period without rain and without wind, and now we are glad of both. This long period of atmospheric stillness has produced some of the thickest, as well as longest-continued, fogs ever experienced. Day after day a dense, yellow, offensive, stinking fog has been somewhere. The low-lying neighborhoods near the Thames have not been specially affected: the fog has often been dense in the high-lying parts of Northern London. A huge mist-cloud, laden with smoke, smuts, and every kind of impurity, has for some time been floating up and down the Thames valley. One patient declared she could taste the fog, it was so offensive. Traffic was interrupted; policemen were put on at important corners, to tell travellers where they were and to direct them. The darkness of these dense fogs is far more bewildering than the darkness of night. The familar objects are obscured,

and things usually not noted become the most prominent objects, and so help the bewilderment. One felt insecure and uncertain of one's way even in familiar streets and neighborhoods. At last have come wind and rain; the wind has dispelled the offensive fog-cloud, and the rain has washed the air till it is a distinct pleasure to breathe it. One fills one's lungs by deep inspirations, and the clear air is grateful and agreeable to the irritated mucous membrane of the respiratory tract. After the vile accumulations of smuts and other mechanical irritants to which the bronchial lining membrane had become subject,—the expectorated masses being of a dark-gray and sometimes positively black hue,—we now have a soothing, pure air.

The Registrar-General's returns tell how disastrous to life has been this period of fog and frost. Such a mortality savors of pestilence, so serious has it been. The fogs of the past period killed more English people than have fallen in any battle since Waterloo. Of course, many of those slain by the fog were children; but still the bulk were adults. Such a death-rate has not been known since the cholera outbreaks of 1849, 1854, and 1866. Compared with the death-rate of the preceding week, the increase has been fifty-four per cent. In the West End the increase was only thirty-two per cent., whereas in the eastern districts it was no less than eighty-three per cent. The Registrar-General had to expect seventeen hundred and nineteen deaths; the actual number registered amounted to the terrible total of three thousand three hundred and seventy-six. Sixteen hundred and fifty-seven persons have been surely killed off by this fog-cloud. If such is the number of the killed, what is the proportion of the wounded? How many persons have just escaped with their lives cannot be estimated, but their name is legion. Wearied diaphragms and strained right ventricles there are in any number; and it will take a considerable period of time before a very large proportion of the inhabitants of London forget, even as regards their subjective sensations, the fogs of Candlemas, 1880.

Strange to say, a number of persons with emphysema were not nearly so distressed as might have been expected. Whatever the explanation of this may be, the fact remains. But persons with pre-existing lung-affections of other kinds were severely taxed. Even those who were quite well felt a certain amount of oppression of their respiration, with some general depression, as if the arterial blood did not get freely into the cerebral arteries. This sensation of depression was still more marked in those who were laid up with their embarrassed respiration. It was not the larger air-tubes which were so much affected; it was the smaller ones which were implicated. Capillary bronchitis is ever a deadly disease, and in the recent fogs capillary bronchitis was associated with congestion of the lungs. Of course, the presence of the latter, by diminishing the thoracic space, aggravated the respiratory difficulty. And the expectoration was unlike anything I have seen before. Instead of the frothy mucus of ordinary bronchitis, it was a firm, ashen-gray mass, not at all unlike an oyster. One patient remarked that after a long paroxysm of coughing, in which the mass was felt to be dislodged, the long inspiration which followed drew it back, and all the coughing had to be done over again. These paroxysms of coughing were very trying with the embarrassed respiration, and the strength was severely tested in those who survived. In one case, an old gentleman of seventy-five, who had old-standing lung-mischief, he simply abandoned the fight: he was doing wonderfully well, all things considered, when suddenly he would do no more,—refused his medicine, his stimulants, and his milk and beef-tea, and determined to die. He would not fight any longer; he had enough of it; he had talked of dying for many long years, and he made his will and determined to die; and die he did, but not nearly as soon as he anticipated. The bulk, however, died with less philosophy, and in spite of all their efforts to live. It was a great pity, from a therapeutic point of view, that the old gentleman decided so positively to give up the fight when he did, for the plan of treatment was having a good effect in reducing the number of respirations per minute and in filling the arteries.

The large amount of lung-embarrassment in these cases was a special feature, and called for its appropriate treatment. In ordinary bronchitis there is the first stage of swelling of the bronchial mucous membrane, with an absence of expectoration, indicating nauseant diaphoretics to reduce the vascular turgescence and promote secretion. After that comes free secretion of frothy mucus, producing bubbling râles. A few days of free expectoration, when the patient's strength must be kept up by might and main, and then the expectoration gradually falls. But in these cases there was from the first expectoration of those curious, large, ashen-gray masses. The râles were fine, and there were no whistling and cooing sounds. It was a fight betwixt the respiratory centres and the diminished lumen of the finer air-tubes; and a stubborn fight these respiratory centres made. But terribly exhausting work is it to maintain the contest; and stimulating expectorants and nutritive fluids, with alcoholic additions, have to be given in no stinted quantities. What became of those patients who got paregoric, chlorodyne, or chloral I do not know, but probably the undertakers and the grave-diggers could tell of the strain put upon them. How long the respiratory centres could maintain the struggle when the paralyzing effects of these drugs are added to

the already exhausting strain upon them, again I do not know, for no opportunity for watching the effects came under my personal observation. Firmly impressed by my experience of the stimulating effects of certain agents upon the respiratory centres and upon the cardiac ganglia, my therapeutic line of treatment was arranged accordingly. To flog these vital centres is clearly the plan to adopt. The heart and respiration must be kept up at all hazards; and kept up they were in most cases. Especially marked were the effects in one case, where there was old-standing emphysema consequent upon chronic bronchitis, with a dilated right heart, for which the lady spent a winter in Algiers three years ago. Fortunately, she had been on strychnia, digitalis, and iron for eighteen months, when the fogs came upon her in the midst of an active life. Sitting up in bed, her back supported by a board, with her shoulders fixed to give the accessory muscles of respiration fair play, her clenched hands spoke of the energy with which she maintained the fight for breath, whilst the dusky hue of her countenance told how keen the struggle was. An undaunted will was there, which had no slight effect upon the result. Day after day the struggle was maintained with stern decision. Inhalations of terebene on a sponge wrung out of hot water soothed the air-tubes and made the expectoration somewhat freer, but could not be said to be as useful and beneficial as they are when the larger tubes alone are affected. To whip on the heavily-taxed respiratory centres was the substantial aid medicine could give her: so three grains of carbonate of ammonia, with five drops of tincture of nux vomica, were given, along with five minims of tincture of digitalis, to maintain the right ventricle, every four hours. Such relief did this combination afford that at her own request the medicine was taken every three hours. Fortunately, the stomach gave little or no trouble, the cough only occasionally producing vomiting. The respirations kept about 32 per minute, and the pulse 120. Feelings of deadly faintness came on, but, fortunately, never reached unconsciousness; the right ventricle never faltered, and the pulse never became irregular or intermittent. And so in time the battle was won; and the amount of prostration which remained told how severe the contest had been. When the critical time was over, the pulse fell to 80 and the respirations to 14 per minute, though the medicine was continued, showing how exhausted the vital centres were. The lady said, plaintively, "Oh, my heart is so tired, and my diaphragm does ache!" And she looked it, though the dusky hue was gone, and the features were placid and the countenance calm. Her strength of will pulled her through, aided powerfully by the medicines, both in her opinion and mine. The effect of this combination was well seen in the old gentleman mentioned before, where in twenty hours the respirations fell from 44 in the minute to 32, the respiratory act being deeper and fuller, while the pulse was fuller but not slower. In another case of most extensive emphysema with chronic bronchitis, a steady course of atropine enabled an old gentleman to weather the storm gallantly.

The appearance of the patients at the hospital was as piteous as their tales, and the amount of misery for which these fogs were responsible is something terrible to contemplate. But by pursuing the line of treatment given above great relief was afforded, and by flogging on the staggering centres results were attained which, in my opinion at least, could not have been attained by any other remedial measures. In many cases there was actual lung-congestion and consolidation in the lower portion of the lungs, which added to the respiratory embarrassment no little, and made the demand for stimulants to the respiratory centres all the more imperative. To have given sedatives would have been to paralyze further the already heavily-taxed centres of the circulation and respiration. The patients would go to sleep fast enough if their breathing could be maintained without voluntary effort. In the lady mentioned above, exhaustion would bring on a sleep from which she was soon awakened with an attack of dyspnœa. In sleep the voluntary efforts cease, and before long the blood becomes so charged with carbonic acid that the respiratory centre is roused, and repeated violent explosions of it set all the muscles of respiration into energetic and rapid action, and the blood is once more fairly depurated. This is the explanation of the violent respiratory efforts by which the sleep is fitfully broken. It is of the utmost importance, for the proper and successful treatment of embarrassed respiration, to comprehend the condition and its requirements, and to realize the effects of certain agents upon the respiratory centres. They can be flogged by certain agents, just as the heart can when the right ventricle is yielding under the demand upon it. And not only are these agents to be pushed freely at the time of trial, but they should be continued for some time after the crisis is past, in order to secure the patient against attacks of syncope, which otherwise may come on and endanger the patient's existence. Feelings of sickening faintness occurred repeatedly, with that tired heart and aching diaphragm, but some sal-volatile or brandy kept syncope away. Of course, where the temperature is not high there is no degeneration of the heart-fibre, as follows sustained pyrexia; rather there was that failure of the right ventricle which follows over-strain from effort. But this temporary failure may threaten life, and it is well to avoid it.

The treatment of acute bronchitis tests the practitioner's moral courage as well as his

knowledge of his profession. If his will falters or he loses his head, it is all over. In the first case he will do nothing, or practically nothing, and allows the patient to sink; in the latter case he becomes positively dangerous, and prescribes the wrong agent. No timid man will ever become an advanced therapeutist. A man must have the courage of his convictions in moments of emergency, and assume the responsibility of energetic action. The hopefulness which animates the doctor communicates itself to the patient and inspires confidence. A weak-willed doctor is sufficient to palsy the little power left in times of acute trial; whereas an energetic, determined doctor lends an increment of courage to his patients. The varied results of experience of certain remedial agents are, doubtless, to some extent due to the confidence with which they are prescribed and the manner of the man in prescribing them. A bold confidence in the agents employed tells upon the patient and intensifies the effects. The patient fully believes the medicine will do good, and feels all the better for it. The intelligence of the patient is also a factor. The lady mentioned above knew and realized how her respiration and her heart had been improved by a long course of the agents which were employed in the acute condition, and felt assured they would exercise a like influence for good when pushed; and the result justified her confidence. Few things are more deeply interesting than to see an animal whose respiration has been paralyzed by a toxic agent beginning to breathe more freely when the antagonistic agent has been administered; but of more thrilling interest still is it to note how the respiratory centres in a fellow-creature when being palsied by the demand of acute disease will respond to the stimulant and carry on the battle of life with renewed energy. The effect is not only excellent upon the patient, but it adds to the practitioner's confidence in the agents employed, and strengthens his faith, which is apt to be weakened and sapped by the sceptical indifference exhibited around him. The chilling effect of a moral iceberg is hostile to the growth of ardent therapeutic belief; doubt is contagious; disbelief weakens the faith of others. One man says he gets no good from the line of treatment about which another is enthusiastic. But how did he try it? That is the question. If he tried it in doubting, hesitating half-belief, probably he tried it either in a hopeless case or in insufficient doses, and then throws discredit on the agent, as the bad workman blames his tools.

It is very important, too, in cases of lung-embarrassment to compare the ratio of the respirations to the pulse. Whenever the respiration is accelerated out of proportion to the increase of the pulse-rate, mischief is indicated as clearly as it is by percussion. This is of much importance in private practice, where the disturbance occasioned by examining the lungs at the back is often very distressing to the patient. As long as the normal proportion—about one to four—is maintained, congestion is little to be feared; but if the ratio of the respiration mounts up, then it is necessary to examine the patient to make sure about it, and more energetic treatment is also thereby indicated. When the pulse mounts, it indicates over-taxation of the right ventricle. Quietly to count the number of the respirations and the pulse-rate, watch in hand, will often save a great deal of unnecessary examination, verbal and other.

J. Milner Fothergill.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting of the Society was held at the hall of the College of Physicians, Philadelphia, January 28, 1880, Dr. Albert H. Smith, President of the Society, in the chair.

Dr. Henry H. Smith read his address upon retiring from the office of president at the end of three years' term of service, taking for his subject "The Advantages Attainable by such an Organization as the Philadelphia County Medical Society" (see page 229). A series of resolutions, offered by Dr. Benjamin Lee, expressive of the sense of obligation felt towards Dr. Smith by the members (the present prosperous condition of the Society having been largely favored by his judicious and faithful administration), and thanking him for his address, were unanimously adopted.

Dr. Charles B. Nancrede made some remarks communicating some original observations on the "Anatomy and Functions of the Ankle and Tibio-Fibular Joints" (see page 316).

Dr. Albert G. Heyl exhibited a picture of the fundus oculi of a diabetic patient, representing the condition of retinal lipæmia, and made some remarks upon the case.

Dr. Nancrede said that he had examined the case, and confirmed Dr. Heyl's remarks in regard to the rarity of the condition and the difficulty in detecting the retinal vessels. The difference in color between the fundus and the vessels was so slight that the vessels were invisible except when looked at very obliquely. He never had experienced so much trouble in seeing the vessels in any previous case.

Dr. Risley had also noticed a peculiarity in the case: the color of the eye-ground was yellowish red,—very different from the normal retina.

Dr. Heyl said that he did not lay any stress upon this last point; though he had noticed it, yet he was not satisfied with it. The fundus

was undoubtedly quite light in color; but the patient had also very light hair and a fair skin, and in such cases the choroid is deficient in color and the eye-ground pale. He was, therefore, not quite sure of its value as a symptom in this case.

It is noticed in the picture that there is no distinction between the arteries and the veins; and it was precisely so in the patient. It was only by adopting the expedient of slightly rotating the ophthalmoscope that he was able to differentiate between these vessels, the veins being a little darker than the arteries. The picture represents the condition exactly.

Dr. John B. Roberts exhibited for Messrs. Snowden & Brother, surgical instrument manufacturers, a cheap modification of Camman's double stethoscope, made entirely of caoutchouc, and well adapted for clinical use in auscultation.

Dr. M. O'Hara spoke of two cases under his care of blood-poisoning, or quasi-diphtheria. These two children, of one family, were attacked in very much the same manner: they had very sore throat, with rigors and high fever, the cases having a strong likeness to scarlet fever; but the eruption was wanting. He attributed the sickness to some unfavorable atmospheric conditions. He had also a case of rheumatism under treatment which was covered with an erythematous eruption.

Dr. Henry H. Smith referred to the presence of a few cases of smallpox in the weekly death returns from the Health Office, and said that there was a wide-spread fear of an epidemic. He thought the matter greatly exaggerated, and had discouraged revaccination among his patients.

A general discussion followed, in which some scattered cases were reported by Drs. Packard, Atkinson, O'Hara, Dunmire, Willard, Baldwin, J. H. Taylor, Blackwood, and others; but the general sentiment expressed was that, while a few cases certainly existed in different parts of the city, there was no immediate cause to fear an epidemic.

Dr. Welch, in reply to a question, said that the entire number of cases occurring since last November, when the smallpox reappeared in the city after an immunity of four years, was only eighty during two months, and there had been only three or four deaths in the Municipal Hospital.

Dr. Woodbury offered a resolution thanking the Board of Health for the enlightened policy pursued and the diligence exhibited in the prompt removal of patients to the Municipal Hospital, and in the employment of efficient means of disinfection, and stating that the Philadelphia County Medical Society cordially seconded their efforts to avert the threatened epidemic of smallpox, similar to that which prevailed in Philadelphia in 1870 and 1871.

Action upon this resolution was postponed for one month.

REVIEWS AND BOOK NOTICES.

Frey on the Microscope and Microscopical Technology.

A second edition of this standard work has just been issued by William Wood & Co., of New York, translated and edited by George R. Cutter, M.D.

A few words in review of a work like this seem due, because this second edition is much superior to the first. The entire edition has been rewritten, and many new illustrations have been introduced. The size of the page has been increased, and the type is larger and the ink better, thus making the second edition much more easily read than the first. Indeed, the cuts are models in this kind of illustration, because of their clearness and good printing.

All American microscopists are familiar with this work, and doubtless find it indispensable in their investigations. It contains full instructions on the optical and mechanical construction of microscopes, and also of the essential tools and accessories with which to work. This is important, because many reputed workers look down microscope-tubes innocent of all real knowledge of the means which render such precise vision possible. Then, again, its technology is fuller and more comprehensive than will be found elsewhere accessible to most students, and this edition brings this part of the subject fully up to the present time in regard to animal tissues.

Another primary advantage of Frey's work is, that after the technology of the normal tissues is fully given, with brief but clear descriptions, the pathological degenerations of the same tissues follow, while everything is held in recollection. This one feature gives Frey's work supreme importance, and it is the true plan to be followed by all students and teachers of histology, whether in the laboratory or in the lecture-room. Histology divorced from pathology is but a half-uttered thought, and gives the student no adequate conception of the possibilities of form or function of a single elementary tissue in the body.

Important new matter on staining tissues has been introduced in this edition. Arnold's researches on the formation and structure of newly-forming blood-vessels, the recent views on bacteria and allied forms, Loven's discovery and demonstration of the lymphatics of the stomach, and matter of interest on spectrum analysis with the microscope, are a few of the subjects which give added value to the second edition. The chapter on the histology of the eye has been written anew, and much recent matter added. Indeed, the beautiful dress which this second edition now wears is extremely creditable to its American publishers and editor.

J. Gibbons Hunt, M.D.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION. By GEORGE M. BEARD, M.D. New York, William Wood & Co., 1880.

After having read well into this book, the adage "Behold how great a fire a small spark kindleth" was "borne in upon us," as that sturdy old prophet of plain speaking, George Fox, would have said. When we had reached the end of the book, the great smoke that rubbish-burning makes followed in our thought, as the moral does a fable.

Nervous exhaustion is, in all seriousness, frequent enough, and frightful enough in its consequences; but the two hundred pages of the present brochure condensed into fifteen would give much more aid to the average practitioner than they now will: the author ought to be the winnower of the grain.

The tone of the book is especially distasteful to us, and we suppose will be to every well-read physician. The continued lamentation over the paucity of the literature of the subject, the wonderment that the profession has so universally neglected such an important and frequent condition or disease as nervous exhaustion, may be well suited to make lay readers believe that the author of the book is possessed of a pearl of great price in his special knowledge, and to apply for the benefits of such knowledge; but most assuredly such absurdities are not adapted to enhance the author's professional reputation.

After closing the first chapter, we were most strongly reminded of an incident in the boyhood of a friend, whose guardian was addicted to long prayers and a rather loose practice. One summer's day, as family prayers were going on with even more than usual fervor and prolixity, a huge goat put his head in the window and said, "Bah!" much to the delight of the unregenerate youngsters.

We have read nearly all of the book, and have failed to find other than the common property of the profession, unless it be in the specialty of barbarous Greek polysyllables: witness the classification of morbid fears,—astraphobia, topophobia, agoraphobia, claustrophobia, anthrophobia, gynephobia, pathophobia, pantaphobia, photophobia, mysophobia. Bah!

THE HYPODERMIC INJECTION OF MORPHIA. By H. H. KANE, M.D. New York, Charles L. Bedmingham & Co., 1880.

Dr. Kane laid the foundation for the present volume by sending circular letters asking some seven questions to a very large number of physicians in America and England. He received a large number of replies, containing much unrecorded information, which gives much freshness to his discussion of a somewhat hackneyed subject. From previous medical publications and the answers to his queries he has been able to collect thirty-seven cases in which death has been attributed to the hypodermic use of the alkaloid.

Whilst it is probable that in some of these cases the death was the result of natural causes, it is certain that but a tithe of the fatal morphia accidents have come to the light. Dr. Kane believes that when serious results have been produced by very minute doses of morphia, the injection has entered the veins *en masse*. To prevent such rapid absorption, he advises that a tape or strap be bound tightly around the limb, so that if untoward symptoms come on it can be at once tightened and stop the carrying of the morphia into the veins. Some reported cases show that this manner of prevention is of value; but we do not believe in practice it will be utilized. Most patients would want to know why the band was put on; and the explanation might not always be soothing to irritated nerves.

Dr. Kane has performed his self-allotted task well, and his brochure of three hundred and fifty pages deserves a position among the books of permanent usefulness. To analyze it more fully would require more space than we have at disposal, and we leave it with well-deserved commendation.

SYLLABUS OF A COURSE OF LECTURES ON PHYSIOLOGY. By J. BURDON SANDERSON, M.D., etc. Second Edition. Philadelphia, Lindsay & Blakiston, 1880. Pp. 143.

This little book is an admirable résumé of the latest and most recondite expressions of physiology. The language is terse, and the descriptions are graphic, while at the same time strictly technical. The work is valuable as a collection of the views of a distinguished writer and investigator, and as such may be read with pleasure by those who have finished their collegiate studies. Its use will be, we fear, rather limited in this country, since the methods of study assumed to exist are widely different from those usually employed in our colleges. H. A.

HEADACHES. By WILLIAM HENRY DAY, M.D. Third Edition. Philadelphia, Lindsay & Blakiston, 1880.

It is perhaps enough to say of this book that it fairly epitomizes the knowledge of the profession concerning the important subject of which it treats, and that but few practitioners will rise from its perusal without feeling that they have gained something from it.

LESSONS IN LARYNGOSCOPY AND RHINOSCOPY, ETC. By PROSSER JAMES, M.D. Third Edition, pp. 160, 5 plates. Philadelphia, Lindsay & Blakiston.

This little manual, judging from the number of editions it has passed through, has become a favorite with the medical public. It gives, in a succinct form, the approved methods of examination and treatment of diseases of the nose, throat, and larynx. The plan pursued is one well adapted to the needs of the general practitioner who wisely acknowledges that

the outfit for travelling the special ways mapped out in treating the affections of these obscure regions must be secured by separate and distinct training, and not by the application to these regions of the routine treatment for other portions of the body. The colored plates are fair, but have been overrated in their degree of accuracy of drawing and naturalness of coloring.

GLEANINGS FROM EXCHANGES.

INFLAMMATIONS OF THE PUDENDUM.—In a clinical lecture "On some Inflammations of the Pudendum" (*Med. Times and Gaz.*, February 21), Dr. Mathews Duncan speaks of the vulvitis of childhood, characterized by slight swelling, redness, and an impetiginous eruption or red papular spotting; a laudable, rather viscid pus covers the whole surface. It is never complicated with vaginitis. It used to be thought the result of sexual violence, but is not by any means always so. It is commonly the result of cold, and is generally easily cured. Dirt and worms are not, as is often supposed, causes. Dr. Duncan has never seen a case which could be attributed to worms. Inflammation of the duct of Cowper's gland and cyst of this duct are difficult to distinguish from abscess of the posterior part of the labium. But in this case there is swelling in the space between the posterior part of the labium and the tuber ischii. The latter is often due to cold. Gonorrhœa of the duct occasionally occurs, and may be treated by passing a probe or by injecting solution of nitrate of silver. Pruritus vulvæ of old age and of diabetes is often agonizing. The latter is due not only to the local action of the sugar-loaded urine, but to the condition of the nervous system in general. Herpes zoster of other parts of the body is not an uncommon accompaniment. Lotions of oxide of zinc and hydrocyanic acid are useful, also black wash. Lotions of poppy-heads or muriate of morphia are also used, and belladonna may be added to them. Sometimes a fomentation of tobacco infusion with borax is comforting. Painting with weak solution of nitrate of silver is sometimes valuable. Dabbing with concentrated solution of boracic acid is worth mentioning. The ointments most used are those of boracic acid, bismuth, zinc, and hydrocyanic acid. Powders of starch, chalk, and bismuth are sometimes useful.

EXTIRPATION OF THE KIDNEYS.—From a leading article in the *British Medical Journal* of January 31, we learn that at present the methodical application of the antiseptic treatment has enabled Martin the younger to obtain new results in cases of movable kidney. The kidney can now be removed, with good expectation of success in suitable cases, through the abdominal cavity. The question is, Which is the better route of removal, the extra-peritoneal from the lumbar region, or the intra-peritoneal from the linea alba? Quite recently Martin has successfully removed a renal tumor by laparotomy, while Zweifel has extirpated a sound kidney with success according to the old method of Simon, on account of a fistulous communication between the ureter and the uterus. Czerny has twice attempted nephrotomy, once in a case of large cancer of the kidney, through the abdominal cavity, and in the other case, one of pyonephrosis, by the lumbar operation. The second case ended in cure. Zweifel's case, referred to above, of uretro-uterine fistula cured by extirpation of the kidney, occurred in a young woman as a result of labor. It is one of eight similar cases on record.

COSTER'S PASTE FOR RINGWORM OF THE HEAD.—℞ Iodinii, ʒij; olei picis, ʒj. Mix. Apply with a stiff brush. It forms a cake, which separates at the end of a week. The application may have to be renewed at the end of a week. It is effectual without blistering.

POISONING BY OIL OF TANSY.—Dr. George Jewett writes to the *Boston Medical and Surgical Journal*, March 4, calling attention to the poisonous properties of the *tanacetum vulgare*, or common garden tansy, which, together with its oil, has a popular reputation in domestic practice as an emmenagogue and as a means of procuring abortion. He gives eight cases of poisoning from this oil. In the first of these a woman took two doses, of fifteen drops and a drachm respectively, of the oil, two hours apart, with a meal intervening. Fifteen minutes later, convulsions occurred, respiration was apparently suspended, followed instantly by complete and general cyanosis. The pupils were widely dilated, pulse 120, respiration imperfect, 35 per minute. Emetics, followed by internal and external stimulation, restored the patient, and convalescence was established by the next day. In a second case death occurred from the ingestion of a teaspoonful of the oil of tansy. The fatal dose has not been ascertained. Death has also ensued from the use of a decoction of the leaves. Used as a vaginal injection in one case, abortion was produced, apparently from the local irritative effect. Dr. Jewett thinks that tansy, internally administered, has no specific influence on the uterus. No antidote to the poison has yet been found: the proper treatment seems to be the removal of the noxious element by apomorphia or some other emetic, and the administration of stimulants.

EAR-SNEEZING AND EAR-GIDDINESS.—At a recent meeting of the Medical Society of London (*Lancet*, February 14) a paper was read by Dr. Ed. Woakes on ear-sneezing and ear-giddiness. He alluded to a case of the kind where the symptoms were traced to a plug of cerumen, which produced irritation

of the vagus, distributed to the external auditory canal, whence the impression was propagated to the lungs through the pulmonary branches of this nerve. The series of reflex events comprised yawning, through implication of the third division of the fifth, and simultaneously implication of the heart, shown by præcardial distress, arising from impressions conveyed to the heart along the cardiac branches of the vagus. Then sneezing followed, from reflex implication of the spinal nerves of respiration, due to the act of yawning. Under the head of "ear-giddiness" Dr. Woakes described a new symptom. Superficial congestion of the hands and forearms was described as associated with it in severe cases. This is probably due to impressions passing from the labyrinth along the vasomotor nerve of the vertebral artery to the inferior cervical ganglion, thence passing, as waves of vessel-dilatation, to the brachial artery, supplied by nerves from the same ganglion. Two factors were indicated as requisite to produce giddiness: direct pressure upon the labyrinth from diseases of the middle ear, and vessel-dilating waves, usually proceeding from the ganglion along the vertebral artery. These two factors, being variable in their actions, were considered as capable of explaining the uncertain and irregular occurrence of giddiness in the subjects of it. Dr. Lauder Brunton said that Czermak's experiments of pressure on the vagus definitely established the fact that thoracic oppression was connected with that nerve. Irritation of the vagus produced slowing of the pulse and a feeling well described by the German word "beklemmung." He agreed with Dr. Woakes that in cases of vertigo connected with indigestion the giddiness was not due to the stomach alone.

Treatment of Salivary Fistula.—Mr. Henry Morris gives the case of a man wounded in the right cheek, in whom a sinus, whence saliva oozed, remained on the face, and the mouth felt dry on that side. The mucous membrane not being injured, Mr. Morris thought the parotid duct might only be partially severed, and passing a fine catgut bougie into the duct, through the buccal orifice, it appeared at the wound. The proximal part of the duct was then sought for, and the bougie guided into it. The case did well, and Mr. Morris remarked that this method of treating salivary fistula afforded encouraging results by reopening the natural passage, and, if such could not be effected, the duct might be opened into the mouth. If the orifice of the duct, which is its smallest part, was closed, it might be reopened.—Clinical Society, *Lancet*, February 21.

Suture of the Divided Median Nerve.—Mr. Hulke (Clinical Society, *Lancet*, February 21) attended a patient who had by accident severed the median nerve and artery above the wrist. The artery was secured by torsion. Adhesion of the divided ends of the nerve was hoped for, but suppuration took place, and when the wound healed the anæsthesia produced by section of the nerve persisted. Esmarch's bandage being applied, the wound was laid open, and the bulbous nerve-ends, which lay three-fourths of an inch apart, were exposed. About one-eighth of an inch was cut off each of the ends, which were then approximated by flexing the hand and by slight stretching of the proximal end of the nerve. Fine sutures were used to secure the divided ends, and a specially-devised splint employed to obtain rest. After three weeks passive movement was employed at the wrist, and about four weeks after the operation sensibility had returned to nearly all the parts supplied by the nerve, except the terminal phalanges of the index and middle fingers. The case afforded a hint also as to similarly joining severed tendons, for before the operation the long flexor tendons were almost functionless. The dissection set them free from the scar tissue, and the subsequently flexed position of the wrist favored their union, so that eventually they acted well. The case showed the propriety of securing severed nerves in all fresh wounds. Were this done immediately, better results might be anticipated.

A New Theory of the Action of Mercury.—In a thesis on this subject, Dr. S. V. Clevinger (*Chicago Medical Gazette*, 1880, p. 81) regards the action of mercury upon the system as in no small part mechanical. Blue mass contains metallic mercury in a finely divided form, examinations under a low magnifying power showing not less than 200,000 globules in a gramme. Dr. Curtis has estimated the diameter of these globules at from $\frac{1}{8000}$ inch to infinitely smaller. Dr. Carpenter has asserted that metallic mercury finely divided can be absorbed by the blood-vessels from the alimentary canal. Dr. Clevinger suggests that these globules drop into the gland tubules and force out the contents of the latter, thus causing a mechanical sweeping out of the glands with consequent restoration of normal secretion. He considers the specific action of mercury upon the salivary glands and its accumulation in the jaws causing caries as explainable by mechanical laws. Mercury, according to Dr. Clevinger, is not a tonic; but if it increases secretion, removes obstructions, and sets the corpuscular manufactories in order, as it does the biliary, it induces tonicity, as the bromides induce sleep. Mercury in poisonous amounts produces ulceration, neuralgic pains, paralysis agitans, epilepsy, often melancholia. Ischæmic softenings of cerebral tissue, infarctus, mania, aphasia, even hemorrhages, have, according to Dr. Clevinger, been caused by mercury, these hemorrhages having often heretofore been ascribed to syphilis. The "specific" action of mercury in syphilis cannot as yet be ex-

actly explained. The disposition of the virus being to centralize itself upon and destroy certain areas, it seems likely that the metal may, by attacking such weakened points, not only break them down, but prevent the static degeneration necessary for the ulcerative processes. This, with the antagonism the metal has for occlusion anywhere, except what it induces itself in great doses, would suffice as a tentative view until we demonstrate exactly the cause of both the disease and its cure. Syphilis in the blood may not manifest itself if sufficient globules are chasing it from forming nuclei. Dr. Clevinger continues at some length, discussing the action of the various compounds of mercury and detailing a number of interesting experiments. The thesis, though not arranged in a perfectly clear and intelligible manner, contains much curious information.

MISCELLANY.

MEETING OF THE ALUMNI ASSOCIATION OF THE JEFFERSON MEDICAL COLLEGE, MARCH 12, 1880—PRESENTATION OF A BUST OF DR. SIMS.—A bust in bronze of J. Marion Sims, M.D., LL.D., was presented to the Alumni Association by the surgical staff of the college hospital. Dr. Levis represented his colleagues of the staff in making the presentation. He referred historically to Dr. Sims's distinguished professional career since his graduation in 1835. His early professional life, which was spent in the South, was noted for his original observations and discoveries. In the city of New York he found a wider field for his talents, and there his work has contributed more than that of any other surgeon to the elevation of gynæcology to its present high position as an advanced specialty. There he founded the Woman's Hospital, and acquired a large and lucrative practice.

Dr. Sims has resided and practised in several of the European capitals, and has received distinguished honors and orders from a number of sovereigns. The bust was made in Paris, and is an admirable likeness, as well as a fine specimen of art. It was received by Professor Gross, President of the Alumni Association, who expressed his admiration of Dr. Sims and presented his professional course as a subject for emulation and imitation by the young men of the Association.

We understand that the bust has been presented by the Alumni to the Board of Trustees of the Jefferson College Hospital, and is to be placed in the hall of the hospital.

FORGETFULNESS OF PERSONAL IDENTITY.—An example came recently under my notice illustrating a derangement of mind in one particular, whereas in other respects the condition of the person was perfectly sound, mentally and physically. He is thirty-five years old, a watchmaker by trade, and an old resident of Cleveland. He has always enjoyed good health, is bright and active intellectually, an original mechanical genius in his way, of strict business integrity,—in short, one of our best citizens.

Almost a year ago he suddenly disappeared. Six months had elapsed when his family first obtained a clue to his movements. He had a child, a daughter six years of age, whom he loved with a most ardent affection. A note was received by her, brief, without date or other index to show his identity; even the post-mark was a blotch of ink that precluded every hope of ascertaining the place of mailing. The missive simply "congratulated her upon her approaching birthday, and regretted that he had no presents to send her." There was no signature, though the address, to her name, number and street, city, county, and State, was properly made and without inaccuracy.

Hope was revived that he was alive somewhere. By means of extensive advertising, the missing man was at length discovered in one of the western counties of Ohio, an inmate of a public institution. He had come thither, having left Cleveland by a night train and ridden ninety miles. Leaving the cars, he repaired to the nearest hotel. In reply to inquiries, he stated that he had lost the knowledge of his own identity; he could not tell his name, or whence he came, or how he came thither; he had no recollections as to where he lived, or of his family, if he had any. He seemed to be in a lost state of mind and full of anxiety,—all appeared strange to him. From his gentlemanly appearance, the landlord kindly kept him a few days. One evening he attended a temperance lecture, and became somewhat excited; he rushed forth into a neighboring saloon and smashed in the windows and tore around generally, was arrested, and the court sentenced him to the county infirmary. On political questions of the day, or business matters generally, he would converse rationally and intelligently, no one suspecting the least trouble with his faculties. While in the infirmary he would dismantle a watch or clock, inspect its parts minutely, clean them, and put them all together again with the utmost nicety and precision. But for the entire year that he was there he never uttered his own name, or gave any idea of his residence or identity.

When at last a most intimate friend called to take him home to his family and friends, he seemed strangely puzzled. He could not recognize the name; said he had never before heard it. When his wife's name was mentioned, he could not think who it was, and said he had no knowledge of anything that had passed, and did not know how he came there.

Upon arriving at home he recognized no one, and could not mention the name of a

single individual. He would go about the streets and into stores and frequented places with as much regularity and system as ever. But his skill in *dissecting* a watch and repairing seems to be heightened, and his sense of touch and accuracy in adjusting its parts seems to have acquired a most wonderful and miraculous perfection.—A. G. SPRINGSTEEN, M.D., *Medical Tribune*, February 15.

PROOF OF DEATH.—Those timid beings who are haunted by apprehensions of being buried alive, and who make testamentary provisions against such a contingency, may now take courage, for science has supplied an infallible means of determining whether or not the vital spark has quitted the mortal frame. Electricity enables us to distinguish with absolute certainty between life and death. For two or three hours after the stoppage of the heart, the whole of the muscles of the body have completely lost their electric excitability. When stimulated by electricity they no longer contract. If, then, when faradism is applied to the muscles of the limbs and trunk, say five or six hours after supposed death, there be no contractile response, it may be certified beyond all doubt that death has taken place, for no faint nor trance nor coma, however deep, can prevent the manifestation of electric muscular contractility. Here there is no possibility of mistake, as there certainly was when the old tests were employed. Muscular contractility, under the faradic stimulus, disappears gradually after death; it is instantly diminished, but is only finally extinguished in about three hours; and hence Dr. Hughes Bennett has suggested that electricity may sometimes be of use in medico-legal investigations, by affording evidence as to the time of death.—*Medical Press and Circular.*

A NEW DISEASE.—A new fever has been discovered to occur in Japan. It is a miasmatic, non-contagious, continued fever, resembling anthrax somewhat in its lesions.

THE Grand Walker Prize of one thousand dollars has been awarded by the Committee of the Boston Society of Natural History to Professor Joseph Leidy, of the University of Pennsylvania, for his researches in natural history. This prize has been given only once before,—then to Alexander Agassiz, for his beautiful studies of echinoderms.

IN a recent number of the *New York Medical Gazette* occurs the following paragraph, which is, of course, untrue. Whether it is the more annoying to Professor Wallace or to Professor Goodell would, perhaps, be hard to decide. At any rate, it is unjustifiable:

"JEFFERSON MEDICAL COLLEGE.—The probability is that, in consequence of failing health, Professor Ellerslie Wallace will soon resign his chair. In the event of this taking place, it is generally believed that it will be offered to and accepted by Professor William Goodell, of the University of Pennsylvania."

SEVEN internes of one of the Paris hospitals fell victims to diphtheria during the past year.

A LABORER'S WIFE in England was recently delivered of double twins. All four children died, and the mother, at date of the report, was hardly expected to live.

IN one of the finest hospitals in New York it is stated that the kitchen odors can be smelt all over the wards. In another similar institution the smell of chloroform is perceptible in the halls and other places during an operation.

DR. WILLIAM THOMSON has been elected by the Trustees of the Jefferson Medical College Honorary Professor of Ophthalmology.

NOTES AND QUERIES.

TREATMENT OF DIPHTHERIA.

DURING the past two winters I have treated over forty cases of diphtheria in all its forms. Eight were severe cases of the croupal form, two of the nasal. I begin with calomel, and give two or three grains every two hours, until the bowels are moved green and slimy; then the fever generally subsides. Then simple solutions of pot. chloras. and tinct. ferri chlor. are given alternately every hour while the severe symptoms continue; then lengthen the time. *Always* allow the patients to sleep at night without waking for medicine, but carefully watch and give when they do. In two cases alum was given, as an emetic, where the patients were choking with croup. Diet, mostly milk and pop-corn.

GEORGE ROBERTS, M.D.

BAZILE MILLS, NEBRASKA.

PHILADELPHIA, March 19, 1880.

PROFESSOR H. C. WOOD,
Editor *Medical Times*:

In the issue of the *Medical Times* of January 31, 1880, Dr. Keating calls attention to and recommends the use of wine of ipecac in the vomiting of pregnancy. Allow me to add a case in point to his. About a year ago I derived marked and immediate benefit, in a case of extreme nausea (without vomiting) during pregnancy, from the administration of half-grain doses of powdered ipecac

Very respectfully yours,
JOSEPH F. EDWARDS.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM MARCH 6 TO MARCH 20, 1880.

MCELDERRY, H., CAPTAIN AND ASSISTANT-SURGEON.—Having reported in person at these Headquarters, assigned to duty at camp at White River, Col. S. O. 19, Department of the Platte, March 5, 1880.

WHITE, R. H., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for six months, with permission to go beyond sea. S. O. 55, A. G. O., March 11, 1880.

BROWN, P. R., CAPTAIN AND ASSISTANT-SURGEON.—Having reported in person at these Headquarters, assigned to duty at Fort Hamilton, New York Harbor. S. O. 39, Department of the East, March 11, 1880.

MOSELEY, E. B., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one month, to take effect on arrival of Assistant-Surgeon McElderry at camp at White River, Col. S. O. 19, c. s., Department of the Platte.

FINLEY, J. A., CAPTAIN AND ASSISTANT-SURGEON.—Having reported in person at these Headquarters, assigned to duty at Fort Adams, R.I. S. O. 41, Department of the East, March 15, 1880.

SLOAN, WILLIAM J., COLONEL AND SURGEON, Medical Director, Department of Dakota, died at St. Paul, Minn., March 17, 1880.